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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,841	09/15/2003	Kenneth R. Schmidt	GP-303099	1190
7590 09/11/2006			EXAMINER	
KATHRYN A MARRA General Motors Corporation Mail Code 482-C23-B21 P.O. Box 300 Detroit, MI 48265-3000			KERNS, KEVIN P	
			ART UNIT	PAPER NUMBER
			1725	
DATE MAILED: 09/11/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/662,841	<b>Applicant(s)</b> SCHMIDT ET AL.	
	<b>Examiner</b> Kevin P. Kerns	<b>Art Unit</b> 1725	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 August 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3,6-15,19,21-24 and 26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6,8,9,12,15,19,21,24 and 26 is/are allowed.
- 6) ☒ Claim(s) 1-3,7,10,11,13,14,22 and 23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-3, 7, 10, 11, 13, 14, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bertels (US 3,202,793) in view of Wang et al. (US 6,373,021).

Bertels discloses a process and member for joining by welding light metals with steel, in which the process and member includes welding a metal sheet (steel plate 9, which has a planar surface on its side to be welded) to an edge of a metal bridging patch (zinc-plated strip member 10), with the strip 10 being welded on its other edge to an aluminum tube 8, such that the welds are fillet welds (12,13) accomplished in a

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conventional manner, including arc welding (which would establish a welding arc between adjacent portions of the edge of the patch and the tube), for example (column 1, lines 11-13 and 59-72; column 2, lines 1-22; and Figures 1 and 2). Although Bertels does not specifically disclose the use of spot welding, drawn arc welding, or a tube thickness, one of ordinary skill in the art would have recognized that selection of an optimum tube thickness would provide sufficient heat transfer properties while providing sufficient strength and rigidity to the structure. Furthermore, Bertels discloses “a conventional manner, e.g. by arc welding”, but one of ordinary skill in the art would have recognized that other welding techniques, including spot welding and drawn arc welding, would have been obvious to the welding artisan, with selection of the welding technique being dependent on materials and/or dimensions of the workpieces to be welded. Bertels does not disclose that the process and member being welded includes welding of a metal sheet to a major side (rather than an edge) of a bridging patch.

However, Wang et al. disclose a method of welding that includes the steps of providing respective major sides of first and second hydroformed conductive workpieces (10,12), one of which is tubular, and the other (major side of a flat sheet) includes a plurality of spot welding projections (28a-28d); contacting a portion of the workpieces (10,12) together; and conducting electricity between the workpieces (10,12) through the projections (circular protrusions 28a-28d) via a pair of electrodes (44,46), such that a roof panel of a vehicle (Figure 4) is formed as a final product, with welding of a metal sheet to a major side (rather than an edge) of a bridging patch being advantageous for obtaining an automotive vehicle structure with improved control over weld nugget

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formation, reduced energy consumption, and prolonged electrode life (abstract; column 1, lines 29-46; column 2, lines 6-67; column 3, lines 1-30; and Figures 1-4).

It would have been obvious to one of ordinary skill in the art at the time the applicants' invention was made to modify the process and member for joining by welding light metals with steel, as disclosed by Bertels, by welding of a metal sheet to a major side of a bridging patch, as taught by Wang et al., in order to obtain an automotive vehicle structure with improved control over weld nugget formation, reduced energy consumption, and prolonged electrode life (Wang et al.; column 1, lines 29-46).

#### ***Allowable Subject Matter***

4. Claims 6, 8, 9, 12, 15, 19, 21, 24, and 26 are allowed.

#### ***Response to Arguments***

5. The examiner acknowledges the applicants' amendment received by the USPTO on August 28, 2006. The applicants have amended claim 26 to place it in condition for allowance (in addition to the other allowed claims in above section 4). Claims 1-3, 6-15, 19, 21-24, and 26 remain under consideration in the application.

6. Applicants' arguments filed August 28, 2006 have been fully considered but they are not persuasive.

With respect to the applicants' remarks/arguments addressing the rejections of claims 1-3, 7, 10, 11, 13, 14, 22, and 23, as set forth on pages 6-8 of the remarks, the

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examiner respectfully disagrees with the applicants' assertion that Bertels does not disclose or suggest spot welding, as Bertels discloses and/or suggests a variety of welding processes in the statement "a conventional manner, e.g. by arc welding". One of ordinary skill in the art would have recognized that other various types of "conventional" welding processes are old in the art, and would have been obvious to the welding artisan. Regarding the Wang et al. reference, Wang et al. disclose spot welding of a metal sheet to a major side (rather than an edge). Hence, the only deficiency of Bertels (welding to an edge) is remedied by Wang et al. (welding to a major side), as it remains the examiner's position that a 90 degree rotation of the bridging patch (or alternatively welding to an adjacent side having a common edge, as taught by Wang et al.), resulting in a major side (rather than an edge) being welded in Wang et al., establishes a *prima facie* case of obviousness with the motivation of obtaining an automotive vehicle structure with improved control over weld nugget formation, reduced energy consumption, and prolonged electrode life (see section 3).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kevin P. Kerns whose telephone number is (571) 272-1178. The examiner can normally be reached on Monday-Friday from 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kevin P. Kerns *Kerin Kerns 9/7/06*  
Primary Examiner  
Art Unit 1725

*KPK*  
kpk  
September 7, 2006